

1 **TITLE V—VEHICLES AND FUELS**  
2 **Subtitle A—Energy Policy Act**  
3 **Amendments**

4 **SEC. 5011. CREDIT FOR SUBSTANTIAL CONTRIBUTION TO-**  
5 **WARD NONCOVERED FLEETS.**

6 Section 508 of the Energy Policy Act of 1992 (42  
7 U.S.C. 13258) is amended by adding at the end the fol-  
8 lowing new subsection:

9 “(e) CREDIT FOR SUBSTANTIAL CONTRIBUTION TO-  
10 WARD USE OF DEDICATED VEHICLES IN NONCOVERED  
11 FLEETS.—

12 “(1) DEFINITIONS.—In this subsection:

13 “(A) MEDIUM OR HEAVY DUTY VEHI-  
14 CLE.—The term ‘medium or heavy duty vehicle’  
15 means a dedicated vehicle that—

16 “(i) in the case of a medium duty ve-  
17 hicle, has a gross vehicle weight rating of  
18 more than 8,500 pounds but not more  
19 than 14,000 pounds; or

20 “(ii) in the case of a heavy duty vehi-  
21 cle, has a gross vehicle weight rating of  
22 more than 14,000 pounds.

23 “(B) SUBSTANTIAL CONTRIBUTION.—The  
24 term ‘substantial contribution’ means not less



1           than \$15,000 in cash or in kind services, as de-  
2           termined by the Secretary.

3           “(2) ALLOCATION OF CREDITS.—The Secretary  
4           shall allocate a credit to a fleet or covered person  
5           under this section if the fleet or person makes a sub-  
6           stantial contribution toward the acquisition and use  
7           of dedicated vehicles or neighborhood electric vehi-  
8           cles by a person that owns, operates, leases, or oth-  
9           erwise controls a fleet that is not covered by this  
10          title.

11          “(3) MULTIPLE CREDITS FOR MEDIUM AND  
12          HEAVY DUTY VEHICLES.—The Secretary shall issue  
13          2 full credits to a fleet or covered person under this  
14          section if the fleet or person makes a substantial  
15          contribution toward the acquisition and use of a me-  
16          dium or heavy duty vehicle.

17          “(4) USE OF CREDITS.—At the request of a  
18          fleet or covered person allocated a credit under this  
19          subsection, the Secretary shall, for the year in which  
20          the acquisition of the dedicated vehicle or neighbor-  
21          hood electric vehicle is made, treat that credit as the  
22          acquisition of 1 alternative fueled vehicle that the  
23          fleet or covered person is required to acquire under  
24          this title.



1           “(5) LIMITATION.—Except as provided in para-  
2           graph (3), no more than 1 credit shall be allocated  
3           under this subsection for each vehicle.”.

4   **SEC. 5012. CREDIT FOR ALTERNATIVE FUEL INFRASTRUC-**  
5           **TURE.**

6           Section 508 of the Energy Policy Act of 1992 (42  
7   U.S.C. 13258), as amended by this Act, is further amend-  
8   ed by adding at the end the following new subsection:

9           “(f) CREDIT FOR INVESTMENT IN ALTERNATIVE  
10   FUEL INFRASTRUCTURE.—

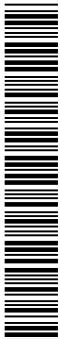
11           “(1) DEFINITION.—In this subsection, the term  
12   ‘qualifying infrastructure’ means—

13           “(A) equipment required to refuel or re-  
14   charge alternative fueled vehicles;

15           “(B) facilities or equipment required to  
16   maintain, repair, or operate alternative fueled  
17   vehicles;

18           “(C) training programs, educational mate-  
19   rials, or other activities necessary to provide in-  
20   formation regarding the operation, mainte-  
21   nance, or benefits associated with alternative  
22   fueled vehicles; and

23           “(D) such other activities the Secretary  
24   considers to constitute an appropriate expendi-  
25   ture in support of the operation, maintenance,



1 or further widespread adoption of or utilization  
2 of alternative fueled vehicles.

3 “(2) ALLOCATION OF CREDITS.—The Secretary  
4 shall allocate a credit to a fleet or covered person  
5 under this section for investment in qualifying infra-  
6 structure if the qualifying infrastructure is open to  
7 the general public during regular business hours.

8 “(3) AMOUNT.—For the purposes of credits  
9 under this subsection—

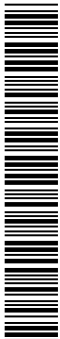
10 “(A) 1 credit shall be equal to a minimum  
11 investment of \$25,000 in cash or in kind serv-  
12 ices, as determined by the Secretary; and

13 “(B) except in the case of a Federal or  
14 State fleet, no part of the investment may be  
15 provided by Federal or State funds.

16 “(4) USE OF CREDITS.—At the request of a  
17 fleet or covered person allocated a credit under this  
18 subsection, the Secretary shall, for the year in which  
19 the investment is made, treat that credit as the ac-  
20 quisition of 1 alternative fueled vehicle that the fleet  
21 or covered person is required to acquire under this  
22 title.”.

23 **SEC. 5013. ALTERNATIVE FUELED VEHICLE REPORT.**

24 (a) DEFINITIONS.—In this section:



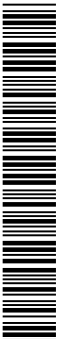
1           (1) ALTERNATIVE FUEL.—The term “alter-  
2       native fuel” has the meaning given the term in sec-  
3       tion 301 of the Energy Policy Act of 1992 (42  
4       U.S.C. 13211).

5           (2) ALTERNATIVE FUELED VEHICLE.—The  
6       term “alternative fueled vehicle” has the meaning  
7       given the term in section 301 of the Energy Policy  
8       Act of 1992 (42 U.S.C. 13211).

9           (3) LIGHT DUTY MOTOR VEHICLE.—The term  
10      “light duty motor vehicle” has the meaning given  
11      the term in section 301 of the Energy Policy Act of  
12      1992 (42 U.S.C. 13211).

13          (4) SECRETARY.—The term “Secretary” means  
14      the Secretary of Energy.

15      (b) REPORT.—Not later than 1 year after the date  
16      of enactment of this Act, the Secretary shall submit to  
17      Congress a report on the effect that titles III, IV, and  
18      V of the Energy Policy Act of 1992 have had on the devel-  
19      opment of alternative fueled vehicle technology, the avail-  
20      ability of alternative fueled vehicles in the market, the cost  
21      of light duty motor vehicles that are alternative fueled ve-  
22      hicles, and the availability, cost, and use of alternative  
23      fuels and biodiesel. Such report shall include any rec-  
24      ommendations of the Secretary for legislation concerning  
25      the alternative fueled vehicle requirements under the En-



1 ergy Policy Act of 1992, and shall examine, discuss, and  
2 determine the following:

3 (1) The number of alternative fueled vehicles  
4 acquired by fleets or covered persons required to ac-  
5 quire alternative fueled vehicles.

6 (2) The extent to which fleets subject to alter-  
7 native fueled vehicle acquisition requirements have  
8 met those requirements through the use of fuel mix-  
9 tures that contain at least 20 percent biodiesel pur-  
10 suant to section 312 of the Energy Policy Act of  
11 1992 (42 U.S.C. 13220).

12 (3) The amount of alternative fuel used in al-  
13 ternative fueled vehicles acquired by fleets required  
14 to acquire alternative fueled vehicles under the En-  
15 ergy Policy Act of 1992.

16 (4) The amount of petroleum displaced by the  
17 use of alternative fueled vehicles acquired by fleets  
18 or covered persons.

19 (5) The cost of compliance with vehicle acquisi-  
20 tion requirements under the Energy Policy Act of  
21 1992, and the benefits of using such fuel and vehi-  
22 cles.

23 (6) Projections of the amount of biodiesel, the  
24 number of alternative fueled vehicles, and the  
25 amount of alternative fuel that will be used over the



1 next decade by fleets required to acquire alternative  
2 fueled vehicles under the Energy Policy Act of 1992.

3 (7) The existence of any obstacles to increased  
4 use of alternative fuel and biodiesel in vehicles ac-  
5 quired or maintained by fleets required to acquire al-  
6 ternative fueled vehicles under the Energy Policy  
7 Act of 1992, and the benefits of using such fuel and  
8 vehicles.

9 **SEC. 5014. ALLOCATION OF INCREMENTAL COSTS.**

10 Section 303(c) of the Energy Policy Act of 1992 (42  
11 U.S.C. 13212(c)) is amended by striking “may” and in-  
12 serting “shall”.

13 **Subtitle B—FreedomCAR and**  
14 **Hydrogen Fuel Program**

15 **SEC. 5021. SHORT TITLE.**

16 This subtitle may be cited as the “FreedomCAR and  
17 Hydrogen Fuel Act of 2003” or “Freedom Act”.

18 **SEC. 5022. FINDINGS, PURPOSE, AND DEFINITIONS.**

19 (a) FINDINGS.—Congress finds that—

20 (1) the United States is currently dependent on  
21 foreign sources for a majority of its petroleum sup-  
22 ply;

23 (2) the Nation’s dependence on foreign petro-  
24 leum is expected to increase in the decades ahead;



1           (3) it is in the national interest to reduce de-  
2           pendence on imported petroleum by accelerating  
3           Federal efforts to partner with the private sector by  
4           deploying hydrogen fuel cell vehicles and the refuel-  
5           ing infrastructure to support those vehicles;

6           (4) it is in the national interest to develop a  
7           light duty vehicle fleet that substantially reduces de-  
8           pendence on foreign petroleum, assists the Nation in  
9           meeting its requirements under the Clean Air Act  
10          and reduces greenhouse gas emissions in a manner  
11          that maintains the freedom of consumers to pur-  
12          chase the kinds of vehicles they wish to drive and  
13          the freedom to refuel those vehicles safely,  
14          affordably, and conveniently;

15          (5) hydrogen fuel cell vehicles and supporting  
16          infrastructure have the potential to accelerate the  
17          parallel advancement of fuel cells for stationary  
18          power that will enhance the resiliency, reliability,  
19          and environmental performance of the Nation's elec-  
20          tricity infrastructure;

21          (6) ancillary benefits for the Nation, including  
22          the acceleration of fuel cell technology for consumer  
23          electronics and portable power, are likely to result  
24          from the advancement of hydrogen fuel cell vehicles  
25          and supporting infrastructure;





1 (7) there is a need for deployment of bridging  
2 technologies including gasoline electric and diesel  
3 electric hybrid drive systems, advanced combustion  
4 engines including clean diesel, electric battery, and  
5 power electronics, and alternative fuels and other  
6 technology that can contribute to reducing petroleum  
7 demand and decreasing air emissions;

8 (8) low-cost hydrogen production, storage, and  
9 delivery facilities are essential to the success of the  
10 FreedomCAR Vehicle Programs; and

11 (9) work should be performed in a manner that  
12 is cognizant of consumer acceptance, passenger safe-  
13 ty, and marketplace success.

14 (b) PURPOSE.—The purpose of this subtitle is to re-  
15 duce significantly the Nation's dependence on imported  
16 petroleum, enhance the production and conservation of en-  
17 ergy, and reduce air emissions through support of the fol-  
18 lowing Department of Energy actions:

19 (1) Programs and activities leading to—

20 (A) a commitment by automakers and hy-  
21 drogen energy and energy infrastructure pro-  
22 viders no later than year 2015 to offer safe, af-  
23 fordable, and technically viable hydrogen fuel  
24 cell vehicles and refueling infrastructure in the  
25 mass consumer market; and



1 (B) a commitment by the automakers and  
2 hydrogen energy and energy infrastructure pro-  
3 viders to the deployment of hydrogen fuel cell  
4 vehicles and affordable and convenient refueling  
5 infrastructure no later than year 2020.

6 (2) A program to establish international codes,  
7 standards, and safety protocols for the use and man-  
8 ufacture of domestic and foreign products.

9 (3) Interagency, intergovernmental, and inter-  
10 national programs and activities for education, infor-  
11 mation exchange, and cooperation.

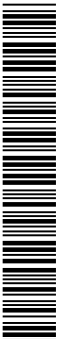
12 (c) DEFINITIONS.—In this subtitle:

13 (1) The term “Advisory Committee” means the  
14 Hydrogen Technical and Fuel Cell Advisory Com-  
15 mittee established under section 5028 of this Act.

16 (2) The term “Department” means the Depart-  
17 ment of Energy.

18 (3) The term “FreedomCAR” is the acronym  
19 for a Department initiative in automotive research  
20 and development entitled “Freedom Cooperative  
21 Automotive Research”.

22 (4) The term “fuel cell” means a device that di-  
23 rectly converts the chemical energy of a fuel and an  
24 oxidant into electricity by an electrochemical process  
25 taking place at separate electrodes in the device.



1           (5) The term “infrastructure” means the equip-  
2           ment, systems, or facilities used to produce, dis-  
3           tribute, deliver, or store hydrogen and other ad-  
4           vanced clean fuels.

5           (6) The term “light duty vehicle” means a car  
6           or truck, classified by the Department of Transpor-  
7           tation as a Class I or IIA vehicle.

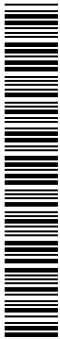
8           (7) The term “Secretary” means the Secretary  
9           of Energy.

10 **SEC. 5023. PLAN; REPORT.**

11           (a) PLAN.—The Secretary, in consultation with other  
12           appropriate Federal agencies, shall prepare a comprehen-  
13           sive interagency coordination plan for activities under this  
14           subtitle. This plan may be provided as part of the Presi-  
15           dent’s annual budget submission to Congress.

16           (b) REPORT.—Not later than one year after the date  
17           of enactment of this subtitle, and biennially thereafter, the  
18           Secretary shall transmit to the Congress a report on the  
19           status of programs and activities under this subtitle. This  
20           report may be provided as part of the President’s annual  
21           budget submission to Congress. This report may include,  
22           in addition to any views and recommendations of the  
23           Secretary—

24                   (1) an assessment of the effectiveness of the  
25           programs and activities under this subtitle and the



1 extent to which the purposes in section 5022(b) have  
2 been met; and

3 (2) the potential for interagency, intergovern-  
4 mental, international, or private sector collaboration  
5 opportunities and activities under this subtitle.

6 **SEC. 5024. PUBLIC-PRIVATE PARTNERSHIP.**

7 (a) PROGRAM.—In partnership with the private sec-  
8 tor, the Secretary shall conduct a program designed to fa-  
9 cilitate the production and conservation of energy and the  
10 deployment of energy infrastructure, including all of the  
11 following:

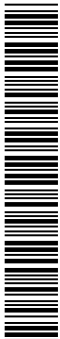
- 12 (1) Hydrogen energy.
- 13 (2) Fuel cells.
- 14 (3) Advanced vehicle technologies.
- 15 (4) Clean fuels in addition to hydrogen.
- 16 (5) Codes, standards, and safety protocols.

17 (b) PROGRAM GOALS.—

18 (1) AUTOMAKERS.—For automakers the goals  
19 of the program are—

20 (A) to enable a commitment by auto-  
21 makers no later than year 2015 to offer safe,  
22 affordable, and technically viable hydrogen fuel  
23 cell vehicles into commerce; and

24 (B) to enable production, delivery, and ac-  
25 ceptance by consumers of model year 2020 hy-



1 hydrogen fuel cell and other vehicles that will  
2 have—

3 (i) a range of at least three hundred  
4 miles;

5 (ii) improved performance and ease of  
6 driving;

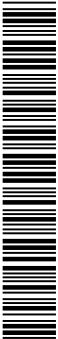
7 (iii) met all light duty safety regula-  
8 tions created under section 30111 of title  
9 49, United States Code; and

10 (iv) when compared to light duty vehi-  
11 cles in model year 2003—

12 (I) a fuel economy that is two  
13 and one half times the equivalent fuel  
14 economy of these vehicles as regulated  
15 under the Motor Vehicle Information  
16 and Cost Savings Act, or about 70  
17 miles per gallon, and

18 (II) near zero emissions of air  
19 pollutants regulated under the Clean  
20 Air Act.

21 (2) HYDROGEN ENERGY AND ENERGY INFRA-  
22 STRUCTURE.—For hydrogen energy and energy in-  
23 frastructure the goals of the program include, but  
24 are not limited to, a commitment not later than



1       2015 that will enable the deployment by 2020 of in-  
2       frastructure to provide—

3               (A) safe and convenient refueling;

4               (B) activities leading to widespread avail-  
5       ability of hydrogen from domestic energy  
6       sources through—

7               (i) production, including consideration  
8       of cost-effective production from domestic  
9       energy sources;

10              (ii) delivery, including transmission by  
11       pipeline and other distribution methods for  
12       hydrogen; and

13              (iii) storage, including storage in sur-  
14       face transportation vehicles;

15              (C) hydrogen for fuel cells, internal com-  
16       bustion engines, and other energy conversion  
17       devices for portable, stationary, and transpor-  
18       tation applications; and

19              (D) other technologies consistent with the  
20       Department's plan.

21              (3) FUEL CELLS.—The program for fuel cells  
22       and their portable, stationary, and transportation  
23       applications may include, but is not limited to—

24              (A) a safe, economical, and environ-  
25       mentally sound hydrogen fuel cell;



1 (B) a fuel cell for light duty and other ve-  
2 hicles; and

3 (C) other technologies consistent with the  
4 Department's plan.

5 (4) ADVANCED VEHICLE TECHNOLOGIES.—The  
6 program for advanced vehicle technologies may in-  
7 clude, but is not limited to—

8 (A) advanced combustion;

9 (B) materials;

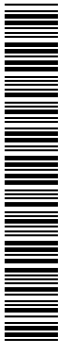
10 (C) energy storage;

11 (D) control systems; and

12 (E) other technologies consistent with the  
13 Department's plan.

14 (5) CODES, STANDARDS, AND SAFETY PROTO-  
15 COLS.—(A) The Department's program for codes,  
16 standards, and safety protocols shall strive towards  
17 establishment of international codes, standards, and  
18 safety protocols for the use and manufacture of do-  
19 mestic and foreign products.

20 (B) The Secretary may represent the United States  
21 interests with respect to activities and programs under  
22 this subsection, collaborating with the Secretary of Trans-  
23 portation, and in consultation with other appropriate gov-  
24 ernments and nongovernmental organizations including  
25 the following:



1 (i) Other Federal, State, regional, and  
2 local governments and their representatives.

3 (ii) Industry and its representatives, in-  
4 cluding members of the energy and transpor-  
5 tation industries.

6 (iii) Foreign governments and their rep-  
7 resentatives including international organiza-  
8 tions.

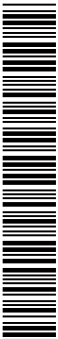
9 (c) FEDERAL FUNDING.—(1) The Secretary shall  
10 carry out the programs and activities under this section  
11 consistent with the generally applicable Federal laws and  
12 regulations governing awards of financial assistance, con-  
13 tracts, or other agreements, and may include funding to  
14 nationally recognized university-based research centers.

15 (2) The Secretary shall endeavor to avoid duplication  
16 or displacement of other research and development pro-  
17 grams and activities.

18 (d) COST SHARING.—(1) The Secretary shall require  
19 a commitment from non-Federal sources of at least 20  
20 percent of the cost of proposed programs under this sec-  
21 tion.

22 (2) The Secretary may reduce or eliminate the cost  
23 sharing requirement under paragraph (1)—

24 (A) if the Secretary determines that the activity  
25 is of a basic or fundamental nature which is vital to





1 the success of the program and unlikely to occur in  
2 a timely manner without reduction or elimination of  
3 the cost-sharing requirement; or

4 (B) for technical analyses, outreach programs,  
5 and other activities including educational programs  
6 under section 5027 of this subtitle that the Sec-  
7 retary does not expect to result in a marketable  
8 product.

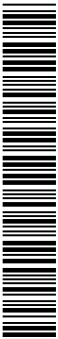
9 **SEC. 5025. DEPLOYMENT.**

10 (a) DEPLOYMENT PROGRAM.—In partnership with  
11 the private sector, the Secretary shall conduct a program  
12 to facilitate the deployment of—

- 13 (1) hydrogen energy and energy infrastructure;
- 14 (2) fuel cells;
- 15 (3) advanced vehicle technologies;
- 16 (4) clean fuels in addition to hydrogen; and
- 17 (5) codes, standards, and safety protocols.

18 (b) PROGRAM GOALS.—(1) For automakers, the  
19 goals of the program are—

- 20 (A) to enable a decision by automakers no later  
21 than year 2015 to offer safe, affordable, and tech-  
22 nically viable hydrogen fuel cell vehicles into com-  
23 merce; and



1 (B) to enable production and delivery to, and  
2 acceptance by, consumers of model year 2020 hydro-  
3 gen fuel cell and other vehicles that will have—

4 (i) a range of at least 300 miles;

5 (ii) improved performance and ease of driv-  
6 ing;

7 (iii) met all light duty safety regulations  
8 created under section 30111 of title 49, United  
9 States Code; and

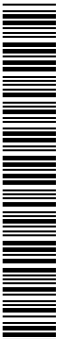
10 (iv) when compared to light duty vehicles  
11 in model year 2003—

12 (I) a fuel economy that is two and one  
13 half times the equivalent fuel economy of  
14 these vehicles under the Motor Vehicle In-  
15 formation and Cost Savings Act, or about  
16 70 miles per gallon; and

17 (II) near zero emissions of air pollut-  
18 ants regulated under the Clean Air Act.

19 (2) HYDROGEN ENERGY AND ENERGY INFRASTRUC-  
20 TURE.—For hydrogen energy and energy infrastructure  
21 the goals of the program include, but are not limited to,  
22 a commitment not later than 2015 that will enable the  
23 deployment by 2020 of infrastructure to provide—

24 (A) safe, convenient, and affordable refueling;



1 (B) widespread availability of hydrogen from  
2 domestic energy sources through—

3 (i) production, including consideration of  
4 cost-effective production from domestic energy  
5 sources;

6 (ii) delivery, including transmission by  
7 pipeline and other distribution methods, for hy-  
8 drogen in its gaseous, liquid, and solid states;  
9 and

10 (iii) storage, including storage in surface  
11 transportation vehicles;

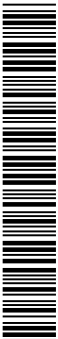
12 (C) hydrogen for fuel cells, internal combustion  
13 engines, and other energy conversion devices for  
14 portable, stationary, and transportation applications;  
15 and

16 (D) other technologies consistent with the De-  
17 partment's plan.

18 (c) FUEL CELLS.—The program for fuel cells and  
19 their portable, stationary, and transportation applications  
20 may include but is not limited to—

21 (1) a safe, economical, and environmentally  
22 sound hydrogen fuel cell;

23 (2) a fuel cell for light duty and other vehicles;  
24 and



1 (3) other technologies consistent with the De-  
2 partment's plan.

3 (d) ADVANCED VEHICLE TECHNOLOGIES.—The pro-  
4 gram for advanced vehicle technologies may include, but  
5 is not limited to—

6 (1) advanced combustion;

7 (2) materials;

8 (3) energy storage;

9 (4) control systems; and

10 (5) other technologies consistent with the De-  
11 partment's plan.

12 (e) FEDERAL FUNDING.—The Secretary shall carry  
13 out the program and activities under this section con-  
14 sistent with laws and regulations governing awards of fi-  
15 nancial assistance, contracts or other agreements, and  
16 may include funding to nationally recognized university-  
17 based research centers. The Secretary shall endeavor to  
18 avoid duplication or displacement of other programs.

19 (g) COST SHARING.—

20 (1) IN GENERAL.—The Secretary shall require  
21 a commitment from non-Federal sources of at least  
22 50 percent of the costs directly relating to a dem-  
23 onstration under this section.



1           (2) REDUCTION.—The Secretary may reduce  
2           the non-Federal requirement under paragraph (1) if  
3           the Secretary determines that—

4                   (A) the reduction is appropriate consid-  
5                   ering the technological risks involved; and

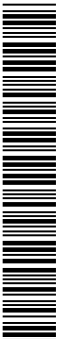
6                   (B) the terms and conditions are con-  
7                   sistent with the Agreement on Subsidies and  
8                   Countervailing Measures.

9           (3) COOPERATIVE AGREEMENTS WITH GOV-  
10          ERNMENTS.—The Secretary may enter into coopera-  
11          tive and cost sharing agreements with Federal,  
12          State, or local governments to deploy vehicles, vehi-  
13          cle systems, and refueling infrastructure using hy-  
14          drogen, fuel cells, or other advanced technologies in  
15          government facilities or fleet transportation systems.

16 **SEC. 5026. ASSESSMENT AND TRANSFER.**

17          (a) PROGRAM.—The Secretary may conduct a pro-  
18          gram to transfer technology to the private sector under  
19          this subtitle.

20          (b) DISCLOSURE.—The Secretary may protect from  
21          disclosure, for up to 5 years after the information was de-  
22          veloped, any information developed pursuant to a cost  
23          shared transaction, or subagreement thereunder, entered  
24          into under this subtitle to advance the goals of the pro-  
25          grams, which developed information is of a character that



1 it would be protected from disclosure under section  
2 552(b)(4) of title 5, United States Code, if this developed  
3 information had been obtained from a person other than  
4 a Federal agency.

5 **SEC. 5027. INTERAGENCY TASK FORCE.**

6 (a) ESTABLISHMENT.—Not later than 120 days after  
7 the date of enactment of this Act, the President shall es-  
8 tablish an interagency task force chaired by the Secretary  
9 or his designee with representatives from each of the fol-  
10 lowing:

11 (1) The Office of Science and Technology Pol-  
12 icy within the Executive Office of the President.

13 (2) The Department of Transportation.

14 (3) The Department of Defense.

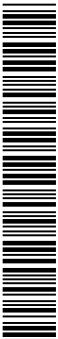
15 (4) The Department of Commerce (including  
16 the National Institute of Standards and Tech-  
17 nology).

18 (5) The Environmental Protection Agency.

19 (6) The National Aeronautics and Space Ad-  
20 ministration.

21 (7) Other Federal agencies as the Secretary de-  
22 termines appropriate.

23 (b) DUTIES OF THE INTERAGENCY TASK FORCE.—



1 (1) PLANNING.—The task force shall coordinate  
2 the implementation of the interagency plan in sec-  
3 tion 5023(a), and work towards deployment of—

4 (A) a safe, economical, and environ-  
5 mentally sound fuel infrastructure, including an  
6 infrastructure that supports buses and other  
7 fleet transportation;

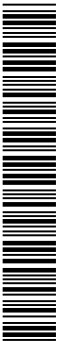
8 (B) fuel cells in government and other ap-  
9 plications, including portable, stationary, and  
10 transportation applications; and

11 (C) distributed power generation, including  
12 the generation of combined heat, power, and  
13 clean fuels including hydrogen.

14 (2) INFORMATION EXCHANGE.—(A) The inter-  
15 agency task force shall coordinate interagency pro-  
16 grams and activities including the exchange of infor-  
17 mation.

18 (B) The heads of all agencies, including those  
19 whose agencies are not represented on the inter-  
20 agency task force, shall cooperate with and furnish  
21 information to the interagency task force, the Advi-  
22 sory Committee, and the Department.

23 (C) The information exchange may consist of  
24 workshops, publications, conferences, and a database



1 for use by the public and private sectors. The inter-  
2 agency task force is expected to—

3 (i) foster the exchange of generic, non-  
4 proprietary information and technology among  
5 industry, academia, and government;

6 (ii) update the inventory and assessment of  
7 hydrogen, fuel cells, and other advanced tech-  
8 nologies, including their commercial capability  
9 for the economic and environmentally safe pro-  
10 duction, distribution, delivery, storage, and use  
11 of clean fuels including hydrogen;

12 (iii) integrate technical and other informa-  
13 tion made available as a result of the programs  
14 and activities under this subtitle;

15 (iv) promote the marketplace introduction  
16 of infrastructure for hydrogen and other clean  
17 fuel vehicles; and

18 (v) conduct an education program to pro-  
19 vide FreedomCAR and hydrogen fuel informa-  
20 tion to potential end-users.

21 **SEC. 5028. ADVISORY COMMITTEE.**

22 (a) ESTABLISHMENT.—The Hydrogen Technical and  
23 Fuel Cell Advisory Committee is established to advise the  
24 Secretary on the programs and activities under this sub-  
25 title.





1 (b) MEMBERSHIP.—

2 (1) MEMBERS.—The Advisory Committee is  
3 comprised of not fewer than 12 nor more than 25  
4 members. These members shall be appointed by the  
5 Secretary to represent domestic industry, academia,  
6 professional societies, government agencies, and fi-  
7 nancial, environmental, and other appropriate orga-  
8 nizations based on the Department's assessment of  
9 the technical and other qualifications of committee  
10 members and the needs of the Advisory Committee.

11 (2) TERMS.—The term of a member of the Ad-  
12 visory Committee shall not be more than 3 years.  
13 The Secretary may appoint members of the Advisory  
14 Committee in a manner that allows the terms of the  
15 members serving at any time to expire at spaced in-  
16 tervals so as to ensure continuity in the functioning  
17 of the Advisory Committee. A member of the Advi-  
18 sory Committee whose term is expiring may be re-  
19 appointed.

20 (3) CHAIRPERSON.—The Advisory Committee  
21 shall have a chairperson, who is elected by the mem-  
22 bers from among their number.

23 (c) REVIEW.—The Advisory Committee shall review  
24 and make recommendations to the Secretary on—



1 (1) the implementation of programs and activi-  
2 ties under this subtitle;

3 (2) the safety, economical, and environmental  
4 consequences of technologies for the production, dis-  
5 tribution, delivery, storage, or use of hydrogen en-  
6 ergy and fuel cells; and

7 (3) the interagency coordination plan under sec-  
8 tion 5023(a) of this Act.

9 (d) RESPONSE TO RECOMMENDATIONS.—The Sec-  
10 retary shall consider, but need not adopt, any rec-  
11 ommendations of the Advisory Committee under sub-  
12 section (c).

13 (e) ADVISORY COMMITTEE SUPPORT.—The Sec-  
14 retary shall provide resources necessary in the judgment  
15 of the Secretary for the Advisory Committee to carry out  
16 its responsibilities under this subtitle.

17 **SEC. 5029. AUTHORIZATION OF APPROPRIATIONS.**

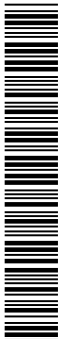
18 There are authorized to be appropriated to carry out  
19 the purposes of this subtitle including programs for light  
20 duty vehicles, in addition to any amounts made available  
21 for these purposes under other Acts—

22 (1) \$273,500,000 for fiscal year 2004;

23 (2) \$325,000,000 for fiscal year 2005;

24 (3) \$375,000,000 for fiscal year 2006;

25 (4) \$400,000,000 for fiscal year 2007; and



1 (5) \$425,000,000 for fiscal year 2008.

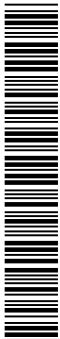
2 **SEC. 5030. FUEL CELL PROGRAM AT NATIONAL PARKS.**

3 The Secretary of Energy, in cooperation with the Sec-  
4 retary of Interior and the National Park Service, is au-  
5 thorized to establish a program to provide matching funds  
6 to assist in the deployment of fuel cells at one or more  
7 prominent National Parks. The Secretary of Energy shall  
8 transmit to Congress within 1 year, and annually there-  
9 after, a report describing any activities taken pursuant to  
10 such program. The report shall address whether activities  
11 taken pursuant to such program reduce the environmental  
12 impacts of energy use at National Parks. There are au-  
13 thorized to be appropriated \$2,000,000 for each of fiscal  
14 years 2004 through 2010 to carry out the purposes of this  
15 section.

16 **Subtitle C—Clean School Buses**

17 **SEC. 5031. ESTABLISHMENT OF PILOT PROGRAM.**

18 (a) ESTABLISHMENT.—The Secretary of Energy, in  
19 consultation with the Secretary of Transportation and the  
20 Administrator of the Environmental Protection Agency,  
21 shall establish a pilot program for awarding grants on a  
22 competitive basis to eligible entities for the acquisition of  
23 alternative fuel school buses and ultra-low sulfur diesel  
24 school buses.



1 (b) REQUIREMENTS.—Not later than 3 months after  
2 the date of the enactment of this Act, the Secretary shall  
3 establish and publish in the Federal register grant require-  
4 ments on eligibility for assistance, and on implementation  
5 of the program established under subsection (a), including  
6 certification requirements to ensure compliance with this  
7 subtitle.

8 (c) SOLICITATION.—Not later than 6 months after  
9 the date of the enactment of this Act, the Secretary shall  
10 solicit proposals for grants under this section.

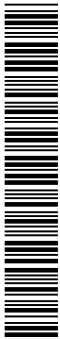
11 (d) ELIGIBLE RECIPIENTS.—A grant shall be award-  
12 ed under this section only—

13 (1) to a local or State governmental entity re-  
14 sponsible for providing school bus service to one or  
15 more public school systems or responsible for the  
16 purchase of school buses; or

17 (2) to a contracting entity that provides school  
18 bus service to one or more public school systems, if  
19 the grant application is submitted jointly with the  
20 school system or systems which the buses will serve.

21 (e) TYPES OF GRANTS.—

22 (1) IN GENERAL.—Grants under this section  
23 shall promote the conservation of energy and im-  
24 provement of public health and the environment by  
25 facilitating the acquisition of alternative fuel school



1 buses and ultra-low sulfur diesel school buses in lieu  
2 of buses manufactured before model year 1977 and  
3 diesel-powered buses manufactured before model  
4 year 1991.

5 (2) NO ECONOMIC BENEFIT.—Other than the  
6 receipt of the grant, a recipient of a grant under this  
7 section may not receive any economic benefit in con-  
8 nection with the receipt of the grant.

9 (3) PRIORITY OF GRANT APPLICATIONS.—The  
10 Secretary shall give priority to awarding grants to  
11 applicants who will utilize grants to replace buses  
12 manufactured before model year 1977.

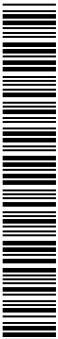
13 (f) CONDITIONS OF GRANT.—A grant provided under  
14 this section shall include the following conditions:

15 (1) All buses acquired with funds provided  
16 under the grant shall be operated as part of the  
17 school bus fleet for which the grant was made for a  
18 minimum of 5 years.

19 (2) Funds provided under the grant may only  
20 be used—

21 (A) to pay the cost, except as provided in  
22 paragraph (3), of new alternative fuel school  
23 buses or ultra-low sulfur diesel school buses, in-  
24 cluding State taxes and contract fees; and

25 (B) to provide—



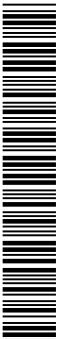
1 (i) up to 10 percent of the price of the  
2 alternative fuel buses acquired, for nec-  
3 essary alternative fuel infrastructure if the  
4 infrastructure will only be available to the  
5 grant recipient; and

6 (ii) up to 15 percent of the price of  
7 the alternative fuel buses acquired, for nec-  
8 essary alternative fuel infrastructure if the  
9 infrastructure will be available to the grant  
10 recipient and to other bus fleets.

11 (3) The grant recipient shall be required to pro-  
12 vide at least the lesser of 15 percent of the total cost  
13 of each bus received or \$15,000 per bus.

14 (4) In the case of a grant recipient receiving a  
15 grant to demonstrate ultra-low sulfur diesel school  
16 buses, the grant recipient shall be required to pro-  
17 vide documentation to the satisfaction of the Sec-  
18 retary that diesel fuel containing sulfur at not more  
19 than 15 parts per million is available for carrying  
20 out the purposes of the grant, and a commitment by  
21 the applicant to use such fuel in carrying out the  
22 purposes of the grant.

23 (g) BUSES.—Funding under a grant made under this  
24 section may be used to facilitate the use only of new alter-



1 native fuel school buses or ultra-low sulfur diesel school  
2 buses—

3 (1) with a gross vehicle weight of greater than  
4 14,000 pounds;

5 (2) that are powered by a heavy duty engine;

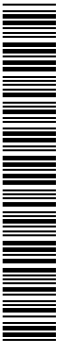
6 (3) that, in the case of alternative fuel school  
7 buses, emit not more than—

8 (A) for buses manufactured in model year  
9 2002, 2.5 grams per brake horsepower-hour of  
10 nonmethane hydrocarbons and oxides of nitro-  
11 gen and .01 grams per brake horsepower-hour  
12 of particulate matter; and

13 (B) for buses manufactured in model years  
14 2003 through 2006, 1.8 grams per brake horse-  
15 power-hour of nonmethane hydrocarbons and  
16 oxides of nitrogen and .01 grams per brake  
17 horsepower-hour of particulate matter; and

18 (4) that, in the case of ultra-low sulfur diesel  
19 school buses, emit not more than—

20 (A) for buses manufactured in model years  
21 2002 through 2003, 3.0 grams per brake horse-  
22 power-hour of oxides of nitrogen and .01 grams  
23 per brake horsepower-hour of particulate mat-  
24 ter; and



1 (B) for buses manufactured in model years  
2 2004 through 2006, 2.5 grams per brake horse-  
3 power-hour of nonmethane hydrocarbons and  
4 oxides of nitrogen and .01 grams per brake  
5 horsepower-hour of particulate matter,  
6 except that under no circumstances shall buses be  
7 acquired under this section that emit nonmethane  
8 hydrocarbons, oxides of nitrogen, or particulate mat-  
9 ter at a rate greater than the best performing tech-  
10 nology of the same class of ultra-low sulfur diesel  
11 school buses commercially available at the time the  
12 grant is made.

13 (h) DEPLOYMENT AND DISTRIBUTION.—The Sec-  
14 retary shall seek to the maximum extent practicable to  
15 achieve nationwide deployment of alternative fuel school  
16 buses and ultra-low sulfur diesel school buses through the  
17 program under this section, and shall ensure a broad geo-  
18 graphic distribution of grant awards, with a goal of no  
19 State receiving more than 10 percent of the grant funding  
20 made available under this section for a fiscal year.

21 (i) LIMIT ON FUNDING.—The Secretary shall provide  
22 not less than 20 percent and not more than 25 percent  
23 of the grant funding made available under this section for  
24 any fiscal year for the acquisition of ultra-low sulfur diesel  
25 school buses.



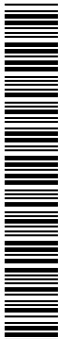


1 (j) REDUCTION OF SCHOOL BUS IDLING.—Each  
2 local educational agency (as defined in section 9101 of the  
3 Elementary and Secondary Education Act of 1965 (20  
4 U.S.C. 7801)) that receives Federal funds under the Ele-  
5 mentary and Secondary Education Act of 1965 (20 U.S.C.  
6 6301 et seq.) is encouraged to develop a policy, consistent  
7 with the health, safety, and welfare of students and the  
8 proper operation and maintenance of school buses, to re-  
9 duce the incidence of unnecessary school bus idling at  
10 schools when picking up and unloading students.

11 (k) ANNUAL REPORT.—Not later than January 31  
12 of each year, the Secretary of Energy shall provide a re-  
13 port evaluating implementation of the program under this  
14 section to the Congress. Such report shall include the total  
15 number of grant applications received, the number and  
16 types of alternative fuel school buses and ultra-low sulfur  
17 diesel school buses requested in grant applications, a list  
18 of grants awarded and the criteria used to select the grant  
19 recipients, certified engine emission levels of all buses pur-  
20 chased under the program, and any other information the  
21 Secretary considers appropriate.

22 (l) DEFINITIONS.—For purposes of this section—

23 (1) the term “alternative fuel school bus”  
24 means a school bus powered substantially by elec-  
25 tricity (including electricity supplied by a fuel cell),



1 or by liquefied natural gas, compressed natural gas,  
2 liquefied petroleum gas, hydrogen, propane, or meth-  
3 anol or ethanol at no less than 85 percent by vol-  
4 ume;

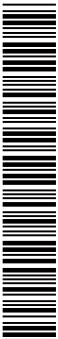
5 (2) the term “idling” means operating an en-  
6 gine while remaining stationary for more than ap-  
7 proximately 3 minutes, except that such term does  
8 not apply to routine stoppages associated with traf-  
9 fic movement or congestion; and

10 (3) the term “ultra-low sulfur diesel school  
11 bus” means a school bus powered by diesel fuel  
12 which contains sulfur at not more than 15 parts per  
13 million.

14 **SEC. 5032. FUEL CELL BUS DEVELOPMENT AND DEM-**  
15 **ONSTRATION PROGRAM.**

16 (a) ESTABLISHMENT OF PROGRAM.—The Secretary  
17 shall establish a program for entering into cooperative  
18 agreements with private sector fuel cell bus developers for  
19 the acquisition of fuel cell-powered school buses, and sub-  
20 sequently with not less than 2 units of local government  
21 using natural gas-powered school buses and such private  
22 sector fuel cell bus developers to facilitate the use of fuel  
23 cell-powered school buses.

24 (b) COST SHARING.—The non-Federal contribution  
25 for activities funded under this section shall be not less



1 than 20 percent for fuel infrastructure development activi-  
2 ties.

3 (c) FUNDING.—No more than \$25,000,000 of the  
4 amounts authorized under section 5033 may be used for  
5 carrying out this section for the period encompassing fis-  
6 cal years 2003 through 2006.

7 (d) REPORTS TO CONGRESS.—Not later than 3 years  
8 after the date of the enactment of this Act, and not later  
9 than October 1, 2006, the Secretary shall transmit to the  
10 Congress a report that—

11 (1) evaluates the process of converting natural  
12 gas infrastructure to accommodate fuel cell-powered  
13 school buses; and

14 (2) assesses the overall impact on energy con-  
15 servation, public health, and the environment as a  
16 result of this program under this section.

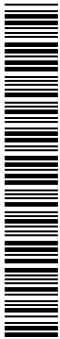
17 **SEC. 5033. AUTHORIZATION OF APPROPRIATIONS.**

18 There are authorized to be appropriated to the Sec-  
19 retary for carrying out this subtitle, to remain available  
20 until expended—

21 (1) \$60,000,000 for fiscal year 2004;

22 (2) \$70,000,000 for fiscal year 2005; and

23 (3) \$80,000,000 for fiscal year 2006.



## 1       **Subtitle D—Advanced Vehicles**

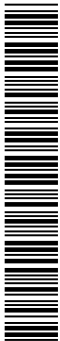
### 2       **SEC. 5041. DEFINITIONS.**

3       For the purposes of this subtitle, the following defini-  
4       tions apply:

5               (1) **ALTERNATIVE FUELED VEHICLE.**—The  
6       term “alternative fueled vehicle” means a vehicle  
7       propelled solely on an alternative fuel as defined in  
8       section 301 of the Energy Policy Act (42 U.S.C.  
9       13211), except the term does not include any vehicle  
10      that the Secretary determines, by rule, does not  
11      yield substantial environmental benefits over a vehi-  
12      cle operating solely on gasoline or diesel derived  
13      from fossil fuels.

14              (2) **FUEL CELL VEHICLE.**—The term “fuel cell  
15      vehicle” means a vehicle propelled by one or more  
16      cells that convert chemical energy directly into elec-  
17      tricity by combining oxygen with hydrogen fuel  
18      which is stored on board the vehicle in any form and  
19      may or may not require reformation prior to use.

20              (3) **HYBRID VEHICLE.**—The term “hybrid vehi-  
21      cle” means a medium or heavy duty vehicle propelled  
22      by an internal combustion engine using any combus-  
23      tible fuel and an onboard rechargeable battery stor-  
24      age system.



1 (4) NEIGHBORHOOD ELECTRIC VEHICLE.—The  
2 term “neighborhood electric vehicle” means a motor  
3 vehicle that qualifies as both—

4 (A) a low-speed vehicle, as such term is de-  
5 fined in section 571.3(b) of title 49, Code of  
6 Federal Regulations; and

7 (B) a zero-emission vehicle, as such term is  
8 defined in section 86.1702–99 of title 40, Code  
9 of Federal Regulations.

10 (5) PILOT PROGRAM.—The term “pilot pro-  
11 gram” means the competitive grant program estab-  
12 lished under section 5042.

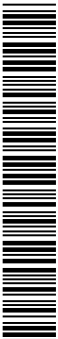
13 (6) ULTRA-LOW SULFUR DIESEL VEHICLE.—  
14 The term “ultra-low sulfur diesel vehicle” means a  
15 vehicle manufactured in model years 2002 through  
16 2006 powered by a heavy-duty diesel engine that—

17 (A) is fueled by diesel fuel which contains  
18 sulfur at not more than 15 parts per million;  
19 and

20 (B) emits not more than the lesser of—

21 (i) for vehicles manufactured in—

22 (I) model years 2002 and 2003,  
23 3.0 grams per brake horsepower-hour  
24 of oxides of nitrogen and .01 grams



1 per brake horsepower-hour of particu-  
2 late matter; and

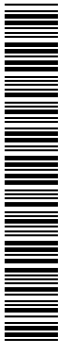
3 (II) model years 2004 through  
4 2006, 2.5 grams per brake horse-  
5 power-hour of nonmethane hydro-  
6 carbons and oxides of nitrogen and  
7 .01 grams per brake horsepower-hour  
8 of particulate matter; or

9 (ii) the emissions of nonmethane hy-  
10 drocarbons, oxides of nitrogen, and partic-  
11 ulate matter of the best performing tech-  
12 nology of ultra-low sulfur diesel vehicles of  
13 the same class and application that are  
14 commercially available.

15 **SEC. 5042. PILOT PROGRAM.**

16 (a) ESTABLISHMENT.—The Secretary shall establish  
17 a competitive grant pilot program, to be administered  
18 through the Clean Cities Program of the Department of  
19 Energy, to provide not more than 10 geographically dis-  
20 persed project grants to State governments, local govern-  
21 ments, or metropolitan transportation authorities to carry  
22 out a project or projects for the purposes described in sub-  
23 section (b).

24 (b) GRANT PURPOSES.—Grants under this section  
25 may be used for the following purposes:



1           (1) The acquisition of alternative fueled vehicles  
2           or fuel cell vehicles, including—

3                   (A) passenger vehicles including neighbor-  
4                   hood electric vehicles; and

5                   (B) motorized two-wheel bicycles, scooters,  
6                   or other vehicles for use by law enforcement  
7                   personnel or other State or local government or  
8                   metropolitan transportation authority employ-  
9                   ees.

10          (2) The acquisition of alternative fueled vehi-  
11          cles, hybrid vehicles, or fuel cell vehicles, including—

12                   (A) buses used for public transportation or  
13                   transportation to and from schools;

14                   (B) delivery vehicles for goods or services;  
15                   and

16                   (C) ground support vehicles at public air-  
17                   ports, including vehicles to carry baggage or  
18                   push airplanes away from terminal gates.

19          (3) The acquisition of ultra-low sulfur diesel ve-  
20          hicles.

21          (4) Infrastructure necessary to directly support  
22          an alternative fueled vehicle, fuel cell vehicle, or hy-  
23          brid vehicle project funded by the grant, including  
24          fueling and other support equipment.



1           (5) Operation and maintenance of vehicles, in-  
2           frastructure, and equipment acquired as part of a  
3           project funded by the grant.

4           (c) APPLICATIONS.—

5           (1) REQUIREMENTS.—The Secretary shall issue  
6           requirements for applying for grants under the pilot  
7           program. At a minimum, the Secretary shall require  
8           that applications be submitted by the head of a  
9           State or local government or a metropolitan trans-  
10          portation authority, or any combination thereof, and  
11          a registered participant in the Clean Cities Program  
12          of the Department of Energy, and shall include—

13                (A) a description of the projects proposed  
14                in the application, including how they meet the  
15                requirements of this subtitle;

16                (B) an estimate of the ridership or degree  
17                of use of the projects proposed in the applica-  
18                tion;

19                (C) an estimate of the air pollution emis-  
20                sions reduced and fossil fuel displaced as a re-  
21                sult of the projects proposed in the application,  
22                and a plan to collect and disseminate environ-  
23                mental data, related to the projects to be fund-  
24                ed under the grant, over the life of the projects;





1 (D) a description of how the projects pro-  
2 posed in the application will be sustainable  
3 without Federal assistance after the completion  
4 of the term of the grant;

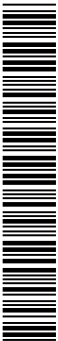
5 (E) a complete description of the costs of  
6 each project proposed in the application, includ-  
7 ing acquisition, construction, operation, and  
8 maintenance costs over the expected life of the  
9 project;

10 (F) a description of which costs of the  
11 projects proposed in the application will be sup-  
12 ported by Federal assistance under this subtitle;  
13 and

14 (G) documentation to the satisfaction of  
15 the Secretary that diesel fuel containing sulfur  
16 at not more than 15 parts per million is avail-  
17 able for carrying out the projects, and a com-  
18 mitment by the applicant to use such fuel in  
19 carrying out the projects.

20 (2) PARTNERS.—An applicant under paragraph  
21 (1) may carry out projects under the pilot program  
22 in partnership with public and private entities.

23 (d) SELECTION CRITERIA.—In evaluating applica-  
24 tions under the pilot program, the Secretary shall consider



1 each applicant's previous experience with similar projects  
2 and shall give priority consideration to applications that—

3 (1) are most likely to maximize protection of  
4 the environment;

5 (2) demonstrate the greatest commitment on  
6 the part of the applicant to ensure funding for the  
7 proposed projects and the greatest likelihood that  
8 each project proposed in the application will be  
9 maintained or expanded after Federal assistance  
10 under this subtitle is completed; and

11 (3) exceed the minimum requirements of sub-  
12 section (c)(1)(A).

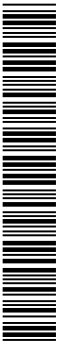
13 (e) PILOT PROJECT REQUIREMENTS.—

14 (1) MAXIMUM AMOUNT.—The Secretary shall  
15 not provide more than \$20,000,000 in Federal as-  
16 sistance under the pilot program to any applicant.

17 (2) COST SHARING.—The Secretary shall not  
18 provide more than 50 percent of the cost, incurred  
19 during the period of the grant, of any project under  
20 the pilot program.

21 (3) MAXIMUM PERIOD OF GRANTS.—The Sec-  
22 retary shall not fund any applicant under the pilot  
23 program for more than 5 years.

24 (4) DEPLOYMENT AND DISTRIBUTION.—The  
25 Secretary shall seek to the maximum extent prac-



1        ticable to ensure a broad geographic distribution of  
2        project sites.

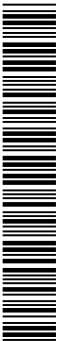
3            (5) TRANSFER OF INFORMATION AND KNOWL-  
4        EDGE.—The Secretary shall establish mechanisms to  
5        ensure that the information and knowledge gained  
6        by participants in the pilot program are transferred  
7        among the pilot program participants and to other  
8        interested parties, including other applicants that  
9        submitted applications.

10       (f) SCHEDULE.—

11           (1) PUBLICATION.—Not later than 3 months  
12        after the date of the enactment of this Act, the Sec-  
13        retary shall publish in the Federal Register, Com-  
14        merce Business Daily, and elsewhere as appropriate,  
15        a request for applications to undertake projects  
16        under the pilot program. Applications shall be due  
17        within 6 months of the publication of the notice.

18           (2) SELECTION.—Not later than 6 months after  
19        the date by which applications for grants are due,  
20        the Secretary shall select by competitive, peer review  
21        all applications for projects to be awarded a grant  
22        under the pilot program.

23        (g) LIMIT ON FUNDING.—The Secretary shall pro-  
24        vide not less than 20 percent and not more than 25 per-



1 cent of the grant funding made available under this sec-  
2 tion for the acquisition of ultra-low sulfur diesel vehicles.

3 **SEC. 5043. REPORTS TO CONGRESS.**

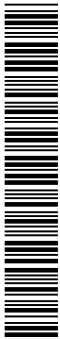
4 (a) INITIAL REPORT.—Not later than 2 months after  
5 the date grants are awarded under this subtitle, the Sec-  
6 retary shall transmit to the Congress a report  
7 containing—

8 (1) an identification of the grant recipients and  
9 a description of the projects to be funded;

10 (2) an identification of other applicants that  
11 submitted applications for the pilot program; and

12 (3) a description of the mechanisms used by the  
13 Secretary to ensure that the information and knowl-  
14 edge gained by participants in the pilot program are  
15 transferred among the pilot program participants  
16 and to other interested parties, including other ap-  
17 plicants that submitted applications.

18 (b) EVALUATION.—Not later than 3 years after the  
19 date of the enactment of this Act, and annually thereafter  
20 until the pilot program ends, the Secretary shall transmit  
21 to the Congress a report containing an evaluation of the  
22 effectiveness of the pilot program, including an assessment  
23 of the benefits to the environment derived from the  
24 projects included in the pilot program as well as an esti-  
25 mate of the potential benefits to the environment to be



1 derived from widespread application of alternative fueled  
2 vehicles and ultra-low sulfur diesel vehicles.

3 **SEC. 5044. AUTHORIZATION OF APPROPRIATIONS.**

4 There are authorized to be appropriated to the Sec-  
5 retary \$200,000,000 to carry out this subtitle, to remain  
6 available until expended.

7 **Subtitle E—Hydrogen Fuel Cell**  
8 **Heavy-Duty Vehicles**

9 **SEC. 5051. DEFINITION.**

10 For the purposes of this subtitle, the term “advanced  
11 vehicle technologies program” means the program created  
12 pursuant to section 5506 of title 49, United States Code.

13 **SEC. 5052. FINDINGS.**

14 The Congress makes the following findings:

15 (1) The Department of Energy and the Depart-  
16 ment of Transportation jointly developed the consor-  
17 tium-based advanced vehicle technologies program to  
18 develop energy efficient and clean heavy-duty vehi-  
19 cles in 1998.

20 (2) The majority of clean fuel vehicles in oper-  
21 ation today are transit buses.

22 (3) Hydrogen fuel cell heavy-duty vehicle bus  
23 deployments can most appropriately advance hydro-  
24 gen fuel cell technology development due to central-  
25 ized refueling, stable duty cycles, and fixed routes.



1           (4) Hydrogen fuel cell heavy-duty vehicle bus  
2       deployments are the most effective manner in which  
3       to advance technology developments for public  
4       awareness, consumption, and acceptance.

5   **SEC. 5053. HYDROGEN FUEL CELL BUSES.**

6       The Secretary of Energy, through the advanced vehi-  
7   cle technologies program, in coordination with the Sec-  
8   retary of Transportation, shall advance the development  
9   of fuel cell bus technologies by providing funding for 4  
10   demonstration sites that—

11           (1) have or will soon have hydrogen infrastruc-  
12       ture for fuel cell bus operation; and

13           (2) are operated by entities with experience in  
14       the development of fuel cell bus technologies,  
15   to enable the widespread utilization of fuel cell buses. Such  
16   demonstrations shall address the reliability of fuel cell  
17   heavy-duty vehicles, expense, infrastructure, containment,  
18   storage, safety, training, and other issues.

19   **SEC. 5054. AUTHORIZATION OF APPROPRIATIONS.**

20       There are authorized to be appropriated to the Sec-  
21   retary of Energy \$10,000,000 for each of the fiscal years  
22   2004 through 2008 for carrying out this subtitle.



1                   **Subtitle F—Miscellaneous**

2   **SEC. 5061. RAILROAD EFFICIENCY.**

3           (a) ESTABLISHMENT.—The Secretary shall, in con-  
4   junction with the Secretary of Transportation and the Ad-  
5   ministrator of the Environmental Protection Agency, es-  
6   tablish a public-private research partnership involving the  
7   Federal Government, the railroad industry, locomotive  
8   manufacturers and equipment suppliers, and the research  
9   facility owned by the Federal Railroad Administration and  
10   operated by contract. The goal of the research partnership  
11   shall include developing and demonstrating locomotive  
12   technologies that increase fuel economy, reduce emissions,  
13   and lower costs.

14          (b) AUTHORIZATION OF APPROPRIATIONS.—There  
15   are authorized to be appropriated to carry out the require-  
16   ments of this section \$25,000,000 for fiscal year 2004,  
17   \$30,000,000 for fiscal year 2005, and \$35,000,000 for fis-  
18   cal year 2006.

19   **SEC. 5062. MOBILE EMISSION REDUCTIONS TRADING AND**  
20                   **CREDITING.**

21          Within 180 days after the date of enactment of this  
22   Act, the Administrator of the Environmental Protection  
23   Agency shall provide a report to the Congress on the Envi-  
24   ronmental Protection Agency's experience with the trading  
25   of mobile source emission reduction credits for use by own-



1 ers and operators of stationary source emission sources  
2 to meet emission offset requirements within a nonattain-  
3 ment area. The report shall describe—

4 (1) projects approved by the Environmental  
5 Protection Agency that include the trading of mobile  
6 source emission reduction credits for use by sta-  
7 tionary sources in complying with offset require-  
8 ments, including project and stationary sources loca-  
9 tion, volumes of emissions offset and traded, a de-  
10 scription of the sources of mobile emission reduction  
11 credits, and, if available, the cost of the credits;

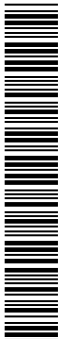
12 (2) the significant issues identified by the Envi-  
13 ronmental Protection Agency in its consideration  
14 and approval of trading in such projects;

15 (3) the requirements for monitoring and assess-  
16 ing the air quality benefits of any approved project;

17 (4) the statutory authority upon which the En-  
18 vironmental Protection Agency has based approval  
19 of such projects;

20 (5) an evaluation of how the resolution of issues  
21 in approved projects could be utilized in other  
22 projects; and

23 (6) any other issues the Environmental Protec-  
24 tion Agency considers relevant to the trading and  
25 generation of mobile source emission reduction cred-





1 its for use by stationary sources or for other pur-  
2 poses.

3 **SEC. 5063. IDLE REDUCTION TECHNOLOGIES.**

4 (a) DEFINITIONS.—For purposes of this section:

5 (1) IDLE REDUCTION TECHNOLOGY.—The term  
6 “idle reduction technology” means a device or sys-  
7 tem of devices utilized to reduce long-duration idling  
8 of a heavy-duty vehicle.

9 (2) HEAVY-DUTY VEHICLE.—The term “heavy-  
10 duty vehicle” means a vehicle that has a gross vehi-  
11 cle weight rating greater than 26,000 pounds and is  
12 powered by a diesel engine.

13 (3) LONG-DURATION IDLING.—The term “long-  
14 duration idling” means the operation of a main drive  
15 engine, for a period greater than 15 consecutive  
16 minutes, where the main drive engine is not engaged  
17 in gear. Such term does not apply to routine stop-  
18 pages associated with traffic movement or conges-  
19 tion.

20 (b) STUDIES OF THE BENEFITS OF IDLE REDUCTION  
21 TECHNOLOGIES.—

22 (1) POTENTIAL FUEL SAVINGS.—Not later than  
23 90 days after the date of enactment of this section,  
24 the Secretary of Energy shall, in consultation with  
25 the Secretary of Transportation, commence a study



1 to analyze the potential fuel savings resulting from  
2 use of idle reduction technologies.

3 (2) RECOGNITION OF BENEFITS OF ADVANCED  
4 IDLE REDUCTION TECHNOLOGIES.—Within 90 days  
5 after the date of enactment of this section, the Ad-  
6 ministrator of the Environmental Protection Agency  
7 is directed to commence a review of the Agency's  
8 mobile source air emissions models used under the  
9 Clean Air Act to determine whether such models ac-  
10 curately reflect the emissions resulting from long-du-  
11 ration idling of heavy-duty trucks and other vehicles  
12 and engines, and shall update those models as the  
13 Administrator deems appropriate. Additionally, with-  
14 in 90 days after the date of enactment of this sec-  
15 tion, the Administrator shall commence a review as  
16 to the appropriate emissions reductions credit that  
17 should be allotted under the Clean Air Act for the  
18 use of advanced idle reduction technologies, and  
19 whether such credits should be subject to an emis-  
20 sions trading system, and shall revise Agency regula-  
21 tions and guidance as the Administrator deems ap-  
22 propriate.

23 (3) IDLING TECHNOLOGIES.—Not later than  
24 180 days after the date of the enactment of this sec-  
25 tion, the Secretary of Energy, in consultation with

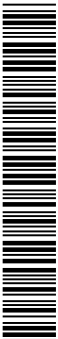


1 the Secretary of Transportation and the Adminis-  
2 trator of the Environmental Protection Agency, shall  
3 commence a study to analyze where heavy duty and  
4 other vehicles stop for long duration idling.

5 (c) VEHICLE WEIGHT EXEMPTION.—Section 127(a)  
6 of title 23, United States Code, is amended by adding at  
7 the end the following: “In instances where an idle reduc-  
8 tion technology is installed onboard a motor vehicle, the  
9 maximum gross vehicle weight limit and the axle weight  
10 limit for any motor vehicle equipped with an idling reduc-  
11 tion system may be increased by an amount necessary to  
12 compensate for the additional weight of the idling reduc-  
13 tion system, except that the weight limit increase shall be  
14 no greater than 400 pounds.”.

15 **SEC. 5064. STUDY OF AVIATION FUEL CONSERVATION AND**  
16 **EMISSIONS.**

17 The Administrator of the Federal Aviation Adminis-  
18 tration and the Administrator of the Environmental Pro-  
19 tection Agency shall jointly commence a study within 60  
20 days after the date of enactment of this Act to identify  
21 the impact of aircraft emissions on air quality in non-  
22 attainment areas and to identify ways to promote fuel con-  
23 servation measures for aviation, enhance fuel efficiency,  
24 and reduce emissions. As part of this study, the Adminis-  
25 trator of the Federal Aviation Administration and the Ad-



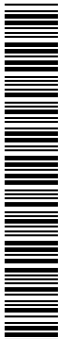
1   ministrator of the Environmental Protection Agency shall  
2   focus on how air traffic management inefficiencies, such  
3   as aircraft idling at airports, result in unnecessary fuel  
4   burn and air emissions. Within 180 days after the com-  
5   mencement of the study, the Administrator of the Federal  
6   Aviation Administration and the Administrator of the En-  
7   vironmental Protection Agency shall submit a report to  
8   the Committees on Energy and Commerce and Transpor-  
9   tation and Infrastructure of the House of Representatives  
10   and the Committees on Environment and Public Works  
11   and Commerce, Science, and Transportation of the Senate  
12   containing the results of the study and recommendations  
13   as to how unnecessary fuel use and emissions affecting  
14   air quality may be reduced, without impacting safety and  
15   security, increasing individual aircraft noise, and taking  
16   into account all aircraft emissions and their relative im-  
17   pact on human health.

18   **SEC. 5065. DIESEL FUELED VEHICLES.**

19       (a) DIESEL COMBUSTION AND AFTER TREATMENT  
20   TECHNOLOGIES.—The Secretary of Energy shall accel-  
21   erate efforts to improve diesel combustion and after-treat-  
22   ment technologies for use in diesel fueled motor vehicles.

23       (b) GOAL.—

24           (1) COMPLIANCE WITH TIER 2 EMISSION  
25   STANDARDS BY 2010.—The Secretary shall carry out



1 subsection (a) with a view to developing and dem-  
2 onstrating diesel technology meeting tier 2 emission  
3 standards not later than 2010.

4 (2) TIER 2 EMISSION STANDARDS DEFINED.—

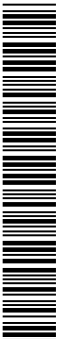
5 In this subsection, the term “tier 2 emission stand-  
6 ards” means the motor vehicle emission standards  
7 promulgated by the Administrator of the Environ-  
8 mental Protection Agency on February 10, 2000,  
9 under sections 202 and 211 of the Clean Air Act to  
10 apply to passenger cars, light trucks, and larger pas-  
11 senger vehicles of model years after the 2003 vehicle  
12 model year.

13 **SEC. 5066. HYBRID VEHICLES.**

14 (a) IN GENERAL.—Notwithstanding section  
15 102(a)(1) of title 23, United States Code, a State may,  
16 for the purpose of promoting energy conservation, permit  
17 a hybrid vehicle which is either a passenger automobile  
18 or light duty truck with fewer than 2 occupants to operate  
19 in high occupancy vehicle lanes.

20 (b) DEFINITION.—In this section, the term “hybrid  
21 vehicle” means a motor vehicle which draws propulsion en-  
22 ergy from both—

23 (1) an internal combustion or heat engine using  
24 combustible fuel; and



1 (2) an onboard rechargeable energy storage sys-  
2 tem.

3 **SEC. 5067. WAIVERS OF ALTERNATIVE FUELED VEHICLE**  
4 **FUELING REQUIREMENT.**

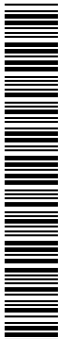
5 Section 400AA(a)(3)(E) of the Energy Policy and  
6 Conservation Act (42 U.S.C. 6374(a)(3)(E)) is amended  
7 to read as follows:

8 “(E)(i) Dual fueled vehicles acquired pursuant to this  
9 section shall be operated on alternative fuels unless the  
10 Secretary determines that an agency needs a waiver of  
11 such requirement for vehicles in the fleet of the agency  
12 in a particular geographic area where—

13 “(I) the alternative fuel otherwise required to  
14 be used in the vehicle is not reasonably available to  
15 retail purchasers of the fuel, as certified to the Sec-  
16 retary by the head of the agency; or

17 “(II) the cost of the alternative fuel otherwise  
18 required to be used in the vehicle is unreasonably  
19 more expensive compared to gasoline, as certified by  
20 the head of the agency.

21 “(ii) The Secretary shall monitor compliance with  
22 this subparagraph by all such fleets and shall report annu-  
23 ally to the Congress on the extent to which the require-  
24 ments of this subparagraph are being achieved. The report  
25 shall include information on annual reductions achieved



1 of petroleum-based fuels and the problems, if any, encoun-  
2 tered in acquiring alternative fuels.”.

